

Abstract of the Disclosure

A PHY entity for a UWB system utilizes the unlicensed 3.1-10.6GHZ UWB band, as regulated in the United States by the Code of Federal Regulation, Title 47, Section 15. The UWB system provides a wireless pico area network (PAN) with data payload communication capabilities of 55, 80, 110, 160, 200, 320 and 480 Mb/s. The UWB system employs orthogonal frequency division multiplexing (OFDM) and uses a total of 122 sub-carriers that are modulated using quadrature phase shift keying (QPSK). Forward error correction coding (convolutional coding) is used with a coding rate of $11/32$, $1/2$, $5/8$ and $3/4$.